



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 13, 2016

Mr. John Elnitsky  
Senior Vice President – Nuclear Engineering  
Duke Energy  
Mail Code: EC07H  
P.O. Box 1006  
Charlotte, NC 28201-1006

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2, H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2, AND SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 – CHANGE IN CORPORATE FORM OF DUKE ENERGY PROGRESS, INC. (CAC NOS. MF7342, MF7343, MF7344 AND MF7345)

Dear Mr. Repko:

The Commission has issued the enclosed Amendment Nos. 271, 299, 152 and 246 to Renewed Facility Operating License Nos. DPR-71, DPR-62, NPF-63, and DPR-23 for Brunswick Steam Electric Plant, Unit Nos. 1 and 2, Shearon Harris Nuclear Power Plant, Unit 1, and H. B. Robinson Steam Electric Plant, Unit No. 2, respectively, in response to your request dated February 1, 2016 (Agencywide Documents Access and Management System Accession No. ML16040A077). Duke Energy Progress, Inc. (Duke), submitted the request to amend the respective licenses in order to address the change in the corporate form of Duke from a corporation to a limited liability company (i.e., Duke Energy, LLC).

The U.S. Nuclear Regulatory Commission (NRC) staff completed the threshold determination and concluded that the request does not involve any license transfer that was not previously approved other than administrative changes to the current licenses. Enclosure 5 is the safety evaluation documenting the results of our threshold review. In addition, Enclosures 6 - 8 contain signed originals of Amendments No. 15, No. 11, and No. 6 to Indemnity Agreements No. B-71, B-43, and B-103, respectively. Please send one signed original of each to the NRC's document control desk for proof of acceptance.

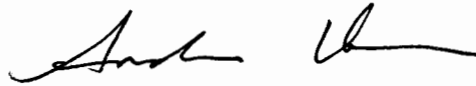
Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

J. Elnitsky

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If you have any questions concerning this letter, please contact me at 301-415-8480 or by email at [Andrew.Hon@nrc.gov](mailto:Andrew.Hon@nrc.gov)

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Hon", with a stylized flourish at the end.

Andrew Hon, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-325, 50-324, 50-400  
and 50-261

Enclosures:

1. Amendment No. 271 to DPR-71
2. Amendment No. 299 to DPR-62
3. Amendment No. 152 to NPF-63
4. Amendment No. 246 to DPR-23
5. Safety Evaluation
6. Amendment No. 15 to Indemnity Agreement to DPR-B71
7. Amendment No. 6 to Indemnity Agreement to DPR-B103
8. Amendment No. 11 to Indemnity Agreement to NPD-B43

cc w/enclosures: Distribution via ListServ

**ENCLOSURE 1**

**AMENDMENT TO RENEWED FACILITY OPERATING**

**LICENSE NO. DPR-71**

**BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS INC.

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 271  
Renewed License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by Duke Energy Progress, Inc., dated February 1, 2016, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the Renewed Facility Operating License No. DPR-71 and the Appendix A Cover Page are amended.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Tracy J. Orf, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License No. DPR-71

Date of Issuance: September 13, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 271

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Replace the following pages of the Renewed Facility Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

Page 1  
Page 2  
Page 3  
Page 6  
Page 8  
Page 9  
Page 10  
Appendix A Cover page

Insert Pages

Page 1  
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Page 10  
Appendix A Cover page

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-71

1. The Nuclear Regulatory Commission (NRC or the Commission) having previously made the findings set forth in License No. DPR-71 issued on September 8, 1976, has now found that:
  - A. The application for license filed by Carolina Power & Light Company\* (CP&L or the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Brunswick Steam Electric Plant, Unit 1 (the facility), has been substantially completed in conformity with Construction Permit No. CPPR-68 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
  - C. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1); and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
  - D. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - E. There is reasonable assurance: (i) that the activities authorized by this renewed operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;

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\* On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- F. The licensee is technically and financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
  - G. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
  - H. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
  - I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and considering available alternatives, the adverse environmental impacts of license renewal are not so great that preserving the option of license renewal would be unreasonable and the issuance of Renewed Facility Operating License No. DPR-71, subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 (formerly Appendix D to Part 50), of the Commission's regulations and all applicable requirements have been satisfied; and
  - J. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, 70.23 and 70.31.
2. Renewed Facility Operating License No. DPR-71 is hereby issued to Duke Energy Progress, LLC to read as follows:
- A. This license applies to the Brunswick Steam Electric Plant, Unit 1, a boiling water reactor and associated equipment (the facility), owned and operated by Duke Energy Progress, LLC. The facility is located on the Cape Fear River, near Southport in Brunswick County, North Carolina, and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 1 through 31) and the "Environmental Report" as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Progress, LLC:
    - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Brunswick County, North Carolina, in accordance with the procedures and limitations set forth in this renewed license;



- (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Brunswick Steam Electric Plant, Unit Nos. 1 and 2, and H. B. Robinson Steam Electric Plant, Unit No. 2.
- (6) Fire Protection

Duke Energy Progress, LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the license amendment request dated September 25, 2012, as supplemented by letters dated December 17, 2012; June 28, 2013; July 15, 2013; July 31, 2013; August 29, 2013; September 30, 2013; February 28, 2014; March 14, 2014; April 10, 2014; June 26, 2014; August 15, 2014; August 29, 2014; November 20, 2014; and December 18, 2014; and as approved in the safety evaluation dated January 28, 2015. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

- (a) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk

(c) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications Committed," of Duke letter BSEP 14-0122, dated November 20, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) by the startup of the second refueling outage for each unit after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall complete all implementation items, except item 9, listed in LAR Attachment S, Table S-2, "Implementation Items," of Duke letter BSEP 14-0122, dated November 20, 2014, within 180 days after NRC approval unless the 180<sup>th</sup> day falls within an outage window; then, in that case, completion of the implementation items, except item 9, shall occur no later than 60 days after startup from that particular outage. The licensee shall complete implementation of LAR Attachment S, Table S-2, Item 9, within 180 days after the startup of the second refueling outage for each unit after issuance of the safety evaluation.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2923 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 271, are hereby incorporated in the license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 203 to Renewed Facility Operating License DPR-71, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 203. For SRs that existed prior to Amendment 203, including SRs with modified acceptance criteria and SRs whose frequency of

Issued pursuant to Section 402 of the Federal Water Pollution Control Act, as amended.

- F. In accordance with the requirement imposed by the October 8, 1976, order of the United States Court of Appeals for the District of Columbia Circuit in Natural Resources Defense Council v. Nuclear Regulatory Commission, No. 74-1385 and 74-1586, that the Nuclear Regulatory Commission "shall make any licenses granted between July 21, 1976 and such time when the mandate is issued subject to the outcome of the proceedings herein," the license issued herein shall be subject to the outcome of such proceedings.
- G. Deleted by Amendment No. 206.
- H. This license is effective as of the date of issuance and shall expire at midnight on September 8, 2036.
- I. Deleted per Amendment No. 70 dated 5-25-84.
- J. Deleted per Amendment No. 70 dated 5-25-84.
- K. Deleted by Amendment No. 206.
- L. Power Uprate License Amendment Implementation  
The licensee shall complete the following actions as a condition of the approval of the power uprate license amendment (Amendment No. 183):
  - (1) Deleted by Amendment No. 206.
  - (2) Deleted by Amendment No. 206.
  - (3) Fuel Pool Decay Heat Evaluation  
The decay heat loads and the decay heat removal systems available for each refueling outage shall be evaluated, and bounding or outage specific analyses shall be used for various refueling sequences. Where a bounding engineering evaluation is in place, a refueling specific assessment shall be made to ensure that the bounding case encompasses the specific refueling sequence. In both cases (i.e., bounding or outage specific evaluations), compliance with design basis assumptions shall be verified.
  - (4) Deleted by Amendment No. 206.
  - (5) Deleted by Amendment No. 206.
- M. The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, CP&L\* may make changes to the programs and activities described in the supplement without prior Commission approval, provided that CP&L\* evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

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\*On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- N. The UFSAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. Duke Energy Progress, LLC shall complete these activities no later than September 8, 2016, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.
- O. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the BWRVIP ISP capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.
- P. Mitigation Strategy License Condition
- Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:
- (1) Fire fighting response strategy with the following elements:
    1. Pre-defined coordinated fire response strategy and guidance
    2. Assessment of mutual aid fire fighting assets
    3. Designated staging areas for equipment and materials
    4. Command and control
    5. Training of response personnel
  - (2) Operations to mitigate fuel damage considering the following:
    1. Protection and use of personnel assets
    2. Communications
    3. Minimizing fire spread
    4. Procedures for implementing integrated fire response strategy
    5. Identification of readily-available pre-staged equipment
    6. Training on integrated fire response strategy
    7. Spent fuel pool mitigation measures
  - (3) Actions to minimize release to include consideration of:
    1. Water spray scrubbing
    2. Dose to onsite responders
- Q. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 269, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Additional Conditions.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

J. E. Dyer, Director  
Office of Nuclear Reactor Regulation

Attachments:

1. Unit 1 – Technical Specifications – Appendices A and B

Date of Issuance: June 26, 2006

**APPENDIX A  
TO  
THE FACILITY OPERATING LICENSE DPR-71**

**TECHNICAL SPECIFICATIONS  
FOR  
BRUNSWICK STEAM ELECTRIC PLANT  
UNIT 1  
DUKE ENERGY PROGRESS, LLC**

**ENCLOSURE 2**

AMENDMENT TO RENEWED FACILITY OPERATING

LICENSE NO. DPR-62

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS, INC.

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 299  
Renewed License No. DPR-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by Duke Energy Progress, Inc., dated February 1, 2016, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.



2. Accordingly, the Renewed Facility Operating License No. DPR-62 and Appendix A Cover Page are amended.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Tracy J. Orf, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License No. DPR-62

Date of Issuance: September 13, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 299

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Replace the following pages of the Renewed Facility Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

Page 1  
Page 2  
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Page 10  
Appendix A Cover Page

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Page 1  
Page 2  
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Page 9  
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Appendix A Cover Page

DUKE ENERGY PROGRESS, LLC  
DOCKET NO. 50-324  
BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2  
RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-62

1. The Nuclear Regulatory Commission (NRC or the Commission) having previously made the findings set forth in License No. DPR-62 issued on December 27, 1974, has now found that:
  - A. The application for license filed by Carolina Power & Light Company\* (CP&L or the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Brunswick Steam Electric Plant, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-67 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
  - C. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1); and (2) time-limited aging analysis that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
  - D. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - E. There is reasonable assurance: (i) that the activities authorized by this renewed operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;

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\* On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- F. The licensee is technically and financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
  - G. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
  - H. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
  - I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Renewed Facility Operating License No. DPR-62 subject to the conditions for protection of the environment set forth herein is in accordance with 10 CFR Part 51 (formerly Appendix D to 10 CFR Part 50), of the Commission's regulations and all applicable requirements have been satisfied; and
  - J. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this renewed license will be in accordance with the Commission's regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Section 30.33, 40.32, and 70.23 and 70.31.
2. Renewed Facility Operating License No. DPR-62 is hereby issued to Duke Energy Progress, LLC to read as follows:
- A. This license applies to Brunswick Steam Electric Plant Unit 2, a boiling water reactor and associated equipment (the facility), owned and operated by Duke Energy Progress, LLC. The facility is located on the Cape Fear River, near Southport in Brunswick County, North Carolina, and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 1 through 29) and the "Environmental Report" as supplemented and amended (Supplements 1 through 7).
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Duke Energy Progress, LLC:
    - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Brunswick County, North Carolina, in accordance with the procedures and limitations set forth in this renewed license;
    - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source, and special nuclear materials without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70 to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Brunswick Steam Electric Plant, Unit Nos. 1 and 2, and H. B. Robinson Steam Electric Plant, Unit No. 2.
- (6) Fire Protection

Duke Energy Progress, LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the license amendment request dated September 25, 2012, as supplemented by letters dated December 17, 2012; June 28, 2013; July 15, 2013; July 31, 2013; August 29, 2013; September 30, 2013; February 28, 2014; March 14, 2014; April 10, 2014; June 26, 2014; August 15, 2014; August 29, 2014; November 20, 2014; and December 18, 2014; and as approved in the safety evaluation dated January 28, 2015. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

- (a) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk

(b) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications Committed," of Duke letter BSEP 14-0122, dated November 20, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) by the startup of the second refueling outage for each unit after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall complete all implementation items, except Item 9, listed in LAR Attachment S, Table S-2, "Implementation Items," of Duke letter BSEP 14-0122, dated November 20, 2014, within 180 days after NRC approval unless the 180<sup>th</sup> day falls within an outage window; then, in that case, completion of the implementation items, except item 9, shall occur no later than 60 days after startup from that particular outage. The licensee shall complete implementation of LAR Attachment S, Table S-2, Item 9, within 180 days after the startup of the second refueling outage for each unit after issuance of the safety evaluation.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2923 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 299, are hereby incorporated in the license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 233 to Renewed Facility Operating License DPR-62, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 233. For SRs that existed prior to Amendment 233,

- (1) Deleted by Amendment No. 236.
- (2) Deleted by Amendment No. 236.
- (3) Fuel Pool Decay Heat Evaluation

The decay heat loads and the decay heat removal systems available for each refueling outage shall be evaluated, and bounding or outage specific analyses shall be used for various refueling sequences. Where a bounding engineering evaluation is in place, a refueling specific assessment shall be made to ensure that the bounding case encompasses the specific refueling sequence. In both cases (i.e., bounding or outage specific evaluations), compliance with design basis assumptions shall be verified.

- (4) Deleted by Amendment No. 236.
- (5) Deleted by Amendment No. 236.

- J. The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, CP&L\* may make changes to the programs and activities described in the supplement without prior Commission approval, provided that CP&L\* evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- K. The UFSAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. Duke Energy Progress, LLC shall complete these activities no later than December 27, 2014, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.
- L. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the BWRVIP ISP capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

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\* On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc."

On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

M. Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (1) Fire fighting response strategy with the following elements:
  1. Pre-defined coordinated fire response strategy and guidance
  2. Assessment of mutual aid fire fighting assets
  3. Designated staging areas for equipment and materials
  4. Command and control
  5. Training of response personnel
  
- (2) Operations to mitigate fuel damage considering the following:
  1. Protection and use of personnel assets
  2. Communications
  3. Minimizing fire spread
  4. Procedures for implementing integrated fire response strategy
  5. Identification of readily-available pre-staged equipment
  6. Training on integrated fire response strategy
  7. Spent fuel pool mitigation measures
  
- (3) Actions to minimize release to include consideration of:
  1. Water spray scrubbing
  2. Dose to onsite responders

N. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

3. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 297, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Additional Conditions.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

J. E. Dyer, Director  
Office of Nuclear Reactor Regulation

Attachments:

1. Unit 2 – Technical Specifications – Appendices A and B

Date of Issuance: June 26, 2006



**APPENDIX A  
TO  
THE FACILITY OPERATING LICENSE DPR-62**

**TECHNICAL SPECIFICATIONS  
FOR  
BRUNSWICK STEAM ELECTRIC PLANT  
UNIT 2  
DUKE ENERGY PROGRESS, LLC**

**ENCLOSURE 3**

AMENDMENT TO RENEWED FACILITY OPERATING

LICENSE NO. NPF-63

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS, INC.

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 152  
License No. NPF-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment The application for amendment filed by Duke Energy Progress, Inc., dated February 1, 2016, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the Renewed Facility Operating License No. NPF-63, Appendix B Cover Page, and Appendix C page 1, are amended.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Tracy J. Orf, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License No. NPF-63

Date of Issuance: September 13, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 152  
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1  
RENEWED FACILITY OPERATING LICENSE NO. NPF-63  
DOCKET NO. 50-400

Replace the following pages of the Renewed Facility Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

Page 1  
Page 2  
Page 3  
Page 4  
Page 4a  
Page 5  
Page 8  
Page 11  
Appendix B Cover Page  
Appendix C page 1

Insert Pages

Page 1  
Page 2  
Page 3  
Page 4  
- - -  
Page 5  
Page 8  
Page 11  
Appendix B Cover Page  
Appendix C page 1

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-63

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for renewal of the license filed by the Carolina Power & Light Company\* (CP&L) for itself complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Shearon Harris Nuclear Power Plant, Unit 1, (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-158 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - C. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1); and (2) time-limited aging analysis that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
  - D. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
  - E. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);

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\*On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- F. Duke Energy Progress, LLC\* is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - G. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
  - H. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
  - I. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Renewed Facility Operating License No. NPF-63, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
  - J. The receipt, possession and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70.
2. Based on the foregoing findings and the Partial Initial Decisions issued by the Atomic Safety and Licensing Board dated February 20, 1985, August 20, 1985, December 11, 1985, and April 28, 1986, regarding this facility and pursuant to approval by the Nuclear Regulatory Commission at a meeting on January 8, 1987, Facility Operating License No. NPF-63, which supersedes the license for fuel loading and low power testing, License No. NPF-53 issued on October 24, 1986, is hereby issued to Duke Energy Progress, LLC. (the licensee) as follows:
- A. This license applies to the Shearon Harris Nuclear Power Plant, Unit 1, a pressurized water reactor and associated equipment (the facility) owned and operated by Duke Energy Progress, LLC. The facility is located on the licensee's site in Wake and Chatham Counties, North Carolina, approximately 16 miles southwest of the nearest boundary of Raleigh, and is described in its Final Safety Analysis Report, as supplemented and amended, and in its Environmental Report, as supplemented and amended;

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\*Duke Energy Progress, LLC. has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

- (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, Duke Energy Progress, LLC to possess, use, and operate the facility at the designated location in Wake and Chatham Counties, North Carolina, in accordance with the procedures and limitations set forth in this license;
- (2) Deleted.
- (3) Pursuant to the Act and 10 CFR Part 70, Duke Energy Progress, LLC. to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, LLC to receive, possess, and use at any time any byproduct, source and special nuclear material such as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, LLC receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
- (6) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, LLC to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein;
- (7) Pursuant to the Act and 10 CFR Parts 30 and 40, Duke Energy Progress, LLC to receive, possess and process for release or transfer to the Shearon Harris site such byproduct material as may be produced by the Shearon Harris Energy and Environmental Center;
- (8) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, Duke Energy Progress, LLC to receive and possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Brunswick Steam Electric Plant, Units 1 and 2, and H. B. Robinson Steam Electric Plant, Unit 2.



C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect, and is subject to the additional conditions specified or incorporated below.

(1) Maximum Power Level

Duke Energy Progress, LLC is authorized to operate the facility at reactor core power levels not in excess of 2948 megawatts thermal (100 percent rated core power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 152, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

Duke Energy Progress, LLC shall comply with the antitrust conditions delineated in Appendix C to this license.

(4) Initial Startup Test Program (Section 14)<sup>1</sup>

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(5) Steam Generator Tube Rupture (Section 15.6.3)

Prior to startup following the first refueling outage, Carolina Power & Light Company\* shall submit for NRC review and receive approval if a steam generator tube rupture analysis, including the assumed operator actions, which demonstrates that the consequences of the design basis steam generator tube rupture event for the Shearon Harris Nuclear Power Plant are less than the acceptance criteria specified in the Standard Review Plan, NUREG-0800, at 15.6.3 Subparts II (1) and (2) for calculated doses from radiological releases. In preparing their analysis Carolina Power & Light Company\* will not assume that operators will complete corrective actions within the first thirty minutes after a steam generator tube rupture.

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<sup>1</sup> The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

\*On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

(6) Detailed Control Room Design Review (Item I.D.1, Section 18)

Carolina Power & Light\* shall submit the final results of the control room surveys prior to startup following the first refueling outage.

(7) Safety Parameter Display System (Section 18.2.1)

Carolina Power & Light Company\* shall submit to the NRC for review prior to startup following the first refueling:

- (a) The final Validation Test Report,
- (b) The resolution of additional human engineering deficiencies identified on the safety parameter display system.

(8) Deleted

(9) Formal Federal Emergency Management Agency Finding

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

(10) Fresh Fuel Storage

The following criteria apply to the storage and handling of new fuel assemblies in the Fuel Handling Building:

- (a) The minimum edge-to-edge distance between a new fuel assembly outside its shipping container or storage rack and all other new fuel assemblies shall be at least 12 inches.
- (c) New fuel assemblies shall be stored in such a manner that water would drain freely from the assemblies in the event of flooding and subsequent draining of the fuel storage area

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\*On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

E. Physical and Cyber Security (Section 13.6.2.10)

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Guard Training and Qualification Plan" submitted by letter dated October 19, 2004, "Physical Security Plan" and "Safeguards Contingency Plan" submitted by letter dated October 19, 2004 as supplemented by letter dated May 16, 2006.

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 136, as supplemented by changes approved by License Amendment Nos. 140 and 144.

F. Fire Protection Program

Duke Energy Progress, LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the revised license amendment request dated October 9, 2009, supplemented by letters dated February 4, 2010, and April 5, 2010, and approved in the associated safety evaluation dated June 28, 2010. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c) and NFPA 805, and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

(1) Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated and maintained plant; and reflect the operating experience at the plant. Acceptable methods to assess the risk of the proposed change may include methods that have been used in the peer-reviewed Fire PRA model, methods that have been approved by the NRC via a plant-specific license amendment or through NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

- (c) The licensee shall maintain appropriate compensatory measures in place until completion of the modifications delineated above.

G. Reporting to the Commission

Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, Duke Energy Progress, LLC shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within twenty-four (24) hours to the NRC Operations Center via the Emergency Notification System with written follow-up within 30 days in accordance with the procedures described in 10 CFR 50.73 (b), (c) and (e).

- H. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- I. The Updated Safety Analysis Report supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the Updated Safety Analysis Report required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, CP&L<sup>1</sup> may make changes to the programs and activities described in the supplement without prior Commission approval, provided that CP&L<sup>1</sup> evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- J. The Updated Safety Analysis Report supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. Duke Energy Progress, LLC shall complete these activities no later than October 24, 2026, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.
- K. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future inspection. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

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<sup>1</sup>On April 29, 2013, the name "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-63  
SHEARON HARRIS NUCLEAR POWER PLANT

UNIT 1

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-400

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

JANUARY 1987

APPENDIX C

ANTITRUST CONDITIONS

The licensee, Duke Energy Progress, LLC is subject to the following antitrust conditions:

Commitment No. 1

Licensee recognizes that it is generally in the public interest for electric utilities to interconnect, coordinate reserves, and engage in bulk power supply transactions, in order to increase electric system reliability and reduce the costs of electric power. Bulk power supply arrangements should be such as to provide benefits, on balance, each to licensee and to other participant(s), respectively. The benefits to participants in such arrangements need not be equal and the benefits realized by a small system may be proportionately greater than those realized by a larger system. In implementing the commitments which it makes in the succeeding paragraphs, licensee will act in accordance with the foregoing principles.

Explanatory Note\*

- (a) Neither licensee nor any other participant shall be obligated to enter into such arrangements (1) if to do so would violate, incapacitate, or limit its ability to perform any other existing contractual arrangement, or (2) to do so would adversely affect its system operations or the reliability of power supply to its customers, or (3) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

Commitment No. 2

Licensee will interconnect with and coordinate reserves by means of the sale and exchange of emergency bulk power with any entity or entities in its service area\*\* engaging in or proposing to engage in electric bulk power supply on terms that will provide for licensee's costs (including a reasonable return) in connection therewith; and allow the other participant(s), as well as licensee, full access on a proportionate basis to the benefits of reserve coordination. ("Proportionate basis" refers to the equalized percentage of reserves concept rather than the largest single-unit concept, unless all participants otherwise agree).

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\* In order to clarify the commitments, certain explanatory notes have been added.

\*\* The use of the term "service area" as found in this commitment or in any other section of the commitments is intended to describe those areas in North Carolina and South Carolina where licensee provides some class of electric service, but in no way indicates an assignment or allocation of wholesale market areas.

**ENCLOSURE 4**

AMENDMENT TO RENEWED FACILITY OPERATING

LICENSE NO. DPR-23

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS, INC.

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 246  
Renewed License No. DPR-23

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment The application for amendment filed by Duke Energy Progress, Inc., dated February 1, 2016, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.



2. Accordingly, the Renewed Facility Operating License No. DPR-23, Appendix A Cover Page, and Appendix B page 1, are amended.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Tracy J. Orf".

Tracy J. Orf, Acting Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License No. DPR-23

Date of Issuance: September 13, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 246

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-23

DOCKET NO. 50-261

Replace the following pages of the renewed facility operating license with the revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

Page 1  
Page 2  
Page 3  
Page 4  
Page 5  
Page 7  
Appendix A Cover Page  
Appendix B page1

Insert Pages

Page 1  
Page 2  
Page 3  
Page 4  
Page 5  
Page 7  
Appendix A Cover Page  
Appendix B 1 page

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-261

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-23

The U.S. Nuclear Regulatory Commission (the Commission) having previously made the findings set forth in License No. DPR-23 issued July 31, 1970, has now found that:

- a. The application to renew License No. DPR-23 filed by Carolina Power & Light Company\* (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in Title 10 *Code of Federal Regulations* (10 CFR) Chapter I, and all required notifications to other agencies or bodies have been duly made;
- b. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for H. B. Robinson Steam Electric Plant, Unit No. 2, and that any changes made to the plant's current licensing basis in order to comply with 10 CFR 54.29(a) are in accord with the Act and the Commission's regulations;
- c. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
- d. There is reasonable assurance (i)(a) that initial fuel loading can be conducted in accordance with this license without endangering the health and safety of the public, (i)(b) that upon completion of the Hot Laboratory and installation and testing of the secondary system as described in the applicant's letter dated July 16, 1970, and as noted in subparagraph 3.A., the facility can be operated at steady state power levels up to 5 megawatts thermal in accordance with this license without endangering the health and safety of the public, and (i)(c) that, upon satisfactory completion of the seismic analysis of Class I piping and equipment and upon satisfactory completion of all the items described in the applicant's letter dated July 16, 1970, except the auxiliary safety device on the crane for handling a spent fuel cask which will be installed prior to handling irradiated fuel with the cask, the facility can be operated at steady state power levels up to 2339 megawatts thermal in accordance with this renewed license without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission;

\* On April 29, 2013, the name Carolina Power & Light Company (CP&L) was changed to Duke Energy Progress, Inc. |  
On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- e. The applicant is technically and financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission;
- f. The applicant has furnished proof of financial protection to satisfy the requirements of 10 CFR Part 140;
- g. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public; and
- h. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the Commission concludes that the issuance of Renewed Operating License No. DPR-23 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

On the basis of the forgoing findings regarding this facility, Facility Operating License No. DPR-23, issued July 31, 1970, is superseded by Renewed Facility Operating License No. DPR-23, which is hereby issued to the Carolina Power & Light Company (CP&L)\*, to read as follows:

1. This renewed license applies to the H. B. Robinson Steam Electric Plant, Unit No. 2 nuclear facility, a closed cycle, pressurized, light water moderated and cooled reactor, and associated steam generators and electric generating equipment (the facility). The facility is located on the applicant's H. B. Robinson site, Darlington County, about 4.5 miles west northwest of Hartsville, South Carolina, and is described in the "Final Facility Description and Safety Analysis Report," as amended (Amendment Nos. 8 through 21), and in the reports filed with the applicant's letters dated June 5, 1970 and July 1, 1970.
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses (CP&L)\*:
  - A. Pursuant to Section 104b of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization at the designated location on the H. B. Robinson site in Darlington County, South Carolina in accordance with the procedures and limitations set forth in this renewed license;
  - B. Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report as supplemented and amended;
  - C. Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

\* On April 29, 2013, the name Carolina Power & Light Company (CP&L) was changed to Duke Energy Progress, Inc. On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
  - E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.
3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- A. Maximum Power Level

The licensee is authorized to operate the facility at a steady state reactor core power level not in excess of 2339 megawatts thermal.
  - B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 246 are hereby incorporated in the license.

The licensee shall operate the facility in accordance with the Technical Specifications.

    - (1) For Surveillance Requirements (SRs) that are new in Amendment 176 to Final Operating License DPR-23, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 176. For SRs that existed prior to Amendment 176, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment 176.

C. Reports

Duke Energy Progress, LLC shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

Duke Energy Progress, LLC shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Fire Protection Program

Duke Energy Progress, LLC shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Fire Protection Safety Evaluation Report dated February 28, 1978, and supplements thereto. Duke Energy Progress, LLC may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

F. Physical Protection and Cyber Security

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "H. B. Robinson Steam Electric Plant Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 1, 2004, as supplemented by letter dated October 20, 2004.

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 226, as supplemented by changes approved by License Amendment Nos. 230 and 239.

G. The following programs shall be implemented and maintained by the licensee:

- (1) DELETED

(2) DELETED

(3) A program to determine the airborne iodine concentration in vital areas under accident conditions. This program shall include: training of personnel, procedures for monitoring, and provisions for maintenance of sampling and analysis equipment.

(4) DELETED

H. DELETED

I. DELETED

J. DELETED

K. Updated Final Safety Analysis Report

The Carolina Power & Light Company\* Updated Final Safety Analysis Report supplement, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to the period of extended operation. The Carolina Power & Light Company\* shall complete these activities no later than July 31, 2010, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

The Updated Final Safety Analysis Report supplement, as revised, shall be included in the next scheduled update to the Updated Final Safety Analysis Report required by 10 CFR 50.71(e)(4) following issuance of this renewed license. Until that update is complete, the Carolina Power & Light Company\* may make changes to the programs and activities described in the supplement without prior Commission approval, provided that the Carolina Power & Light Company\* evaluates each such change pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

\*On April 29, 2013, the name Carolina Power & Light Company (CP&L) was changed to Duke Energy Progress, Inc. On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

4. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 236, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the additional conditions.

5. This renewed license is effective as of the date of issuance and shall expire at midnight on July 31, 2030.

FOR THE NUCLEAR REGULATORY COMMISSION

**ORIGINAL SIGNED BY  
J. E. DYER**

J. E. Dyer, Director  
Office of Nuclear Reactor Regulation

Attachments: 1. Appendix A - Technical Specifications  
2. Appendix B - Additional Conditions

Date of Issuance: April 19, 2004



APPENDIX A  
TO  
THE RENEWED FACILITY OPERATING LICENSE DPR-23  
TECHNICAL SPECIFICATIONS  
FOR  
H. B. ROBINSON STEAM ELECTRIC PLANT  
UNIT NO. 2  
DUKE ENERGY PROGRESS, LLC  
DARLINGTON COUNTY, S.C.  
DOCKET NO. 50-261

APPENDIX B

ADDITIONAL CONDITIONS  
FACILITY OPERATING LICENSE NO. DPR-23

Duke Energy Progress, LLC. (the term licensee in Appendix B refers to Duke Energy Progress, LLC) shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
176	The licensee is authorized to relocate certain requirements included in Appendix A and the former Appendix B to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's letters dated September 10, 1997, and October 13, 1997, evaluated in the NRC staff's Safety Evaluation enclosed with this amendment.	This amendment is effective immediately and shall be implemented within 90 days of the date of this amendment.
219	Upon implementation of the amendment adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage as required by TS 5.5.17.c.(i), the assessment of CRE habitability as required by TS 5.5.17.c.(ii), and the measurement of CRE pressure as required by TS 5.5.17.d, shall be considered met. Following implementation:  (a) The first performance of TS 5.5.17.c.(i), shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2, as measured from January 27,2003, the	This amendment is effective immediately and shall be implemented as specified

**ENCLOSURE 5**  
**SAFETY EVALUATION**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO LICENSE AMENDMENT REQUEST

BY DUKE ENERGY PROGRESS, INC. FOR THE FOLLOWING LICENSES:

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2;

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1; AND

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2

DOCKET NOS. 50-325, 50-324, 50-261, AND 50-400

1.0 INTRODUCTION

By letter dated February 1, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16040A077). Duke Energy Progress, Inc. (Duke), submitted a request to amend the licenses for Brunswick Steam Electric Plant, Units 1 and 2 (BSEP), H. B. Robinson Steam Electric Plant Unit No. 2 (RNP), and Shearon Harris Nuclear Power Plant, Unit 1 (HNP). This request is pursuant to Section 50.90 in Title 10 of the *Code of Federal Regulations* (10 CFR), "Application for amendment of license, construction permit, or early site permit." The purpose of the request is for the respective licenses for BSEP, RNP, and HNP to be amended to reflect the conversion from Duke Energy Progress, Inc., to Duke Energy Progress, LLC [limited liability company]. Effective on or about August 1, 2015, Duke was converted from a corporation organized under the laws of the State of North Carolina to an LLC organized under the laws of the State of North Carolina.

2.0 REGULATORY EVALUATION

10 CFR 50.80, Transfer of licenses

- (a) *No license for a production or utilization facility (including, but not limited to, permits under this part and part 52 of this chapter, and licenses under parts 50 and 52 of this chapter), or any right thereunder, shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing.*

NUREG-1577, Rev. 1 (1999), which states, in connection with review of applications for license transfers, that:

The reviewer should treat applications involving changes of ownership, mergers, formation of holding companies, and other restructuring proposals that go beyond corporate name changes or internal reorganizations as potential transfers of licenses, directly or indirectly, through transfer of control of the license, as subject to section 50.80 review, and not merely subject to a section 50.90 license amendment review ... (A name change of a licensee that does not involve license transfer considerations under section 50.80 will be effected by a license amendment issued administratively under section 50.)

10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements."

### 3.0 TECHNICAL EVALUATION

The U.S. Nuclear Regulatory Commission (NRC) defers to the state in which a business entity is chartered to determine if the entity's change in corporate form requires the dissolution of the original entity, or if the conversion is simply administrative in nature.<sup>1</sup> In its request, Duke cites North Carolina General Statutes, Chapter 55: North Carolina Business Corporation Act, Sections 55-11A-10 through 55-11A-13, to categorize the conversion in corporate form of Duke to Duke Energy Progress, LLC, as the equivalent of a name change and, therefore, administrative in nature. As stated, in relevant part, in § 55-11A-13, *Effects of conversion*:

The converting domestic corporation ceases its prior form of organization and continues in existence as the resulting business entity;  
. . . The cessation of the existence of the converting domestic corporation in its form of organization as a domestic corporation in the conversion shall not constitute a dissolution or termination of the converting domestic corporation.

The NRC staff agrees that, since the relevant state law allows the conversion of Duke to Duke Energy Progress, LLC, without the dissolution of Duke, this change in corporate form is administrative in nature and does not require an NRC license transfer review under 10 CFR 50.80, "Transfer of licenses."

---

<sup>1</sup> "Indian Point Nuclear Generating Unit Nos. 1 and 2, Palisades Nuclear Plant, Vermont Yankee Nuclear Power Station, and Big Rock Point -Threshold Review for Change In Corporate Form of Entergy Nuclear Holding Company (TAC NOS. MF3218, MF3220, and MF3221)," dated June 29, 2015, ADAMS Accession No. ML15176A270; and,

"Letter from J. G. Giitter (USNRC) to M. R. Kansler (Entergy), Request for Threshold Determination Under 10 CFR 50.80 – Big Rock Point, James A. Fitzpatrick Nuclear Power Plant, Indian Point Nuclear Generating Unit Nos. 1, 2, and 3, Palisades Nuclear Plant, Pilgrim Nuclear Power Station, and Vermont Yankee Nuclear Power Station (TAC Nos. ME1896, ME1897, ME1898, ME1899, ME1900, ME1901, ME1902, and ME1903)," dated October 29, 2009, ADAMS Accession No. ML092870647.

Under 10 CFR 50.80, no license or control of a license for a utilization facility may be transferred, directly or indirectly, to any entity unless the NRC consents in writing. However, administrative changes, such as name changes, do not necessarily constitute license transfers. In support of the requested license amendments, Duke stated in its request that: "The conversion is administrative in nature and no substantive changes to the licensee's arrangements or ability to own, operate, or decommission BSEP, RNP, and HNP will result from the name change."

Duke's proposed change in corporate form does not involve the transfer of any control over the BSEP, RNP, or HNP licenses to another entity. Further support for the administrative nature of Duke's change in corporate form can be found in the NRC's Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance (NUREG-1577, Rev. 1 (1999)), which states, in connection with review of applications for license transfers, that:

The reviewer should treat applications involving changes of ownership, mergers, formation of holding companies, and other restructuring proposals that go beyond corporate name changes or internal reorganizations as potential transfers of licenses, directly or indirectly, through transfer of control of the license, as subject to section 50.80 review, and not merely subject to a section 50.90 license amendment review ... (A name change of a licensee that does not involve license transfer considerations under section 50.80 will be effected by a license amendment issued administratively under section 50.)

This is consistent with prior precedent (see footnote 1), in which the NRC staff determined that a conversion in a business' structure from a corporation to an LLC, where there has not been a dissolution of the corporation or a transfer of ownership under state law, is allowable and does not require a license transfer review. As such, the NRC staff finds that there is no transfer of a license or of an interest in a license within the meaning of 10 CFR 50.80.

As part of the license amendment request, and pursuant to the requirements of the Price-Anderson Act (Section 170 of the Atomic Energy Act of 1954, as amended), and the NRC's implementing regulations at 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," the indemnity agreements for BSEP, RNP, and HNP will need to be amended to account for the change in corporate form of Duke. Thus, the indemnity agreement amendments, as shown in Enclosures 6, 7 and 8, need to be executed in 30 days in conjunction with the license amendment request to reflect this name change of the licensee for BSEP, RNP, and HNP.

In summary, the NRC staff finds that the proposed change in corporate form is administrative in nature and that no substantive changes to the licensee's arrangements or ability to own, operate, or decommission BSEP, RNP, or HNP will result from the conversion of Duke to Duke Energy Progress, LLC. Additionally, since the change in corporate form is subject to the laws of the State of North Carolina, and North Carolina does not require dissolution of the current corporation or the creation of a new business entity, the NRC staff concludes that the conversion did not involve any direct or indirect transfer of control of any license, which would

warrant NRC approval pursuant to 10 CFR 50.80. Therefore, the change in corporate form of Duke from a corporation to a limited liability company is acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina and the State of South Carolina officials were notified of the proposed issuance of the amendments. The State officials had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments provide for a licensee name change only, therefore, the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (81 FR 21596). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Ruthanne Murray  
Andrew Hon

Date: September 13, 2016

**ENCLOSURE 6**

AMENDMENT NO. 15 TO  
INDEMNITY AGREEMENT NO. B-71





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

Docket Nos. 50-324, 50-325

AMENDMENT TO INDEMNITY AGREEMENT NO. B-71

AMENDMENT NO. 15

Effective September 13, 2016, Indemnity Agreement No. B-71, between Duke Energy Progress, Inc., and the United States Nuclear Regulatory Commission, dated January 14, 1974, as amended, is hereby further amended as follows:

The name "Duke Energy Progress, Inc." is deleted wherever it appears in the agreement and substituted in lieu thereof by the name:

"Duke Energy Progress, LLC"

Item 1 of the Attachment to the indemnity agreement is modified by deleting the name "Duke Energy Progress, Inc." wherever it appears in the agreement and substituted in lieu thereof by the name:

Item 1 – Licensee	Duke Energy Progress, LLC
Address	526 South Church St. Charlotte, NC 28202 Mail Code: EC3XP

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Anthony Bowers", written over a horizontal line.

Anthony Bowers, Chief  
Financial Analysis and International Projects Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

Accepted \_\_\_\_\_, 2016

By \_\_\_\_\_  
Duke Energy Progress, LLC

**ENCLOSURE 7**

AMENDMENT NO. 6 TO

INDEMNITY AGREEMENT NO. B-103



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

Docket No. 50-400

AMENDMENT TO INDEMNITY AGREEMENT NO. B-103

AMENDMENT NO. 6

Effective September 13, 2016, Indemnity Agreement No. B-103, between Duke Energy Progress, Inc., and the United States Nuclear Regulatory Commission, dated October 28, 1985, as amended, is hereby further amended as follows:

The name "Duke Energy Progress, Inc." is deleted wherever it appears in the agreement and substituted in lieu thereof by the name:

"Duke Energy Progress, LLC"

Item 1 of the Attachment to the indemnity agreement is modified by deleting the name "Duke Energy Progress, Inc." wherever it appears in the agreement and substituted in lieu thereof by the name:

Item 1 – Licensee	Duke Energy Progress, LLC
Address	526 South Church St. Charlotte, NC 28202 Mail Code: EC3XP

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Anthony Bowers", written over a horizontal line.

Anthony Bowers, Chief  
Financial Analysis and International Projects Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

Accepted \_\_\_\_\_, 2016

By \_\_\_\_\_  
Duke Energy Progress, LLC

**ENCLOSURE 8**

AMENDMENT NO. 11 TO  
INDEMNITY AGREEMENT NO. B-43



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

Docket No. 50-261

AMENDMENT TO INDEMNITY AGREEMENT NO. B-43

AMENDMENT NO. 11

Effective September 13, 2016, Indemnity Agreement No. B-43, between North Carolina Eastern Municipal Power Agency, and the United States Nuclear Regulatory Commission, dated December 4, 1969, as amended, is hereby further amended as follows:

The name "Duke Energy Progress, Inc." is deleted wherever it appears in the agreement and substituted in lieu thereof by the name:

"Duke Energy Progress, LLC"

Item 1 of the Attachment to the indemnity agreement is modified by deleting the name "North Carolina Eastern Municipal Power Agency" wherever it appears in the agreement and substituted in lieu thereof by the name:

Item 1 – Licensee      Duke Energy Progress, LLC

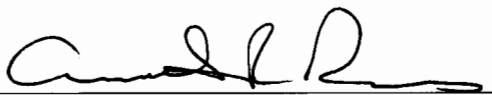
Address                526 South Church St.  
Charlotte, NC 28202  
Mail Code: EC3XP

In light of the above amendments, Indemnity Agreement No. B-43 is between Duke Energy Progress, LLC, and the United States Nuclear Regulatory Commission.

Historical licensee name changes to the original indemnity agreement and attachments thereof were not previously recorded. Therefore, the following name changes are listed here as a matter of record:

- 1) Carolina Power and Light changed to Duke Energy Progress, Inc. on October 21, 2013.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION



Anthony Bowers, Chief  
Financial Analysis and International Projects Branch  
Division of Inspection and Regional Support  
Office of Nuclear Reactor Regulation

Accepted \_\_\_\_\_, 2016

By \_\_\_\_\_  
Duke Energy Progress, LLC

J. Elnitsky

- 2 -

If you have any questions concerning this letter, please contact me at 301-415-8480 or by email at [Andrew.Hon@nrc.gov](mailto:Andrew.Hon@nrc.gov)

Sincerely,

*/RA/*

Andrew Hon, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-325, 50-324, 50-400  
and 50-261

Enclosures:

1. Amendment No. 271 to DPR-71
2. Amendment No. 299 to DPR-62
3. Amendment No. 152 to NPF-63
4. Amendment No. 246 to DPR-23
5. Safety Evaluation
6. Amendment No. 15 to Indemnity Agreement to DPR-B71
7. Amendment No. 6 to Indemnity Agreement to DPR-B103
8. Amendment No. 11 to Indemnity Agreement to NPD-B43

cc w/enclosures: Distribution via ListServ

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OFFICE	DORL/LPL2-2/PM	DORL/LPL2-2/LA	DIRS/IFIB/BC	OGC (NLO)
NAME	AHon	BClayton	ABowers (MDusaniwskyj for)	BMizuno
DATE	08/19/2016	08/19/2016	08/22/2016	09/02/16
OFFICE	DORL/LPL2-2/BC	DORL/LPL2-2/PM		
NAME	TOrf (Acting)	AHon		
DATE	09/12/2016	09/13/2016		

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